

METHOD AND SYSTEM FOR DETECTING OBJECT PRESENCE AND ITS  
DURATION IN A GIVEN AREA

ABSTRACT OF THE DISCLOSURE

A system, (10) for determining a presence of an object, the identity of the object, and the object's duration of presence in a given area includes one or more mobile transmitters (12) that periodically send out a beacon signal, each with a unique identification code. The unique identification code is placed within one or more data packets transmitted by the mobile transmitter (12) as the beacon signal. A node (14) includes a receiver (16) that receives a beacon signal whenever a mobile transmitter (12) is within a threshold range of the node (14). The node (14) includes a controller (18) that determines a signal strength of each received beacon signal and extracts the unique identification code therefrom. The controller (18) compares the signal strength of each received beacon signal to a reference signal strength associated with the threshold range in order to determine whether the mobile transmitter (12) was within the desired detection area of the node (14). The node (14) includes a transmitter that generates an information packet having the signal strength and number of each received beacon signal, the unique identification code, and an identity of the node (14) for transmission to a base unit (24). The base unit (24) sorts received information packets for processing by a base computer (28) in order to determine what mobile transmitter (12) was at what node (14) and for how long.